

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently Amended) In a system for performing encryption communications using a common key updated at a predetermined timing between a key transmitting device and a key receiving device, a common key encryption communication system comprising:

a key transmitting device including a first retaining unit retaining a most-updated encryption key and a one-generation-anterior encryption key as the ~~above~~ common keys, and first setting unit setting ~~a~~ the one-generation-anterior encryption key for transmission and setting ~~a~~ the most-updated encryption key and ~~a~~ the one-generation-anterior encryption key for receipt, ~~respectively~~; and

a ~~the above~~ key receiving device including a second retaining unit retaining ~~a~~ the most-updated encryption key and ~~a~~ the one-generation-anterior encryption key as the ~~above~~ common keys, ~~a~~ second setting unit setting ~~a~~ the most-updated encryption key for transmission, and setting ~~a~~ the most-updated encryption key and ~~a~~ the one-generation-anterior encryption key for receipt, ~~respectively~~, and a decryption unit decrypting ~~an encrypted data with any one of the most-updated encryption key and the one-generation-anterior encryption key are set by the second setting unit~~ data by use of the most-updated encryption key which is set by the second setting unit if the data is encrypted by the most-updated encryption key and the decryption unit decrypting the data by use of the one-generation-anterior encryption key which is set by the second setting unit if the data is encrypted by the one-generation-anterior encryption key.

2. (currently amended) A common key encryption communication system according to claim 1, wherein the ~~above~~ key transmitting device further includes an acquisition unit acquiring a first encryption key, the ~~above~~ first retaining unit updates and retains the ~~above~~ most-updated encryption key as the one-generation-anterior encryption key and the first retaining unit updated and retains the first encryption key acquired by the ~~above~~ acquisition unit as the most-updated encryption key, ~~respectively~~, and the ~~above~~ first setting unit re-sets the one-generation-anterior encryption key for transmission with the one-generation-anterior encryption key retained by the first retaining unit, and the first setting unit re-sets the most-updated encryption key and the one-generation-anterior encryption key for receipt with the most-updated encryption key and the one-generation-anterior encryption key retained ~~respectively on the basis of the retained key after being updated by the above first retaining unit, respectively.~~

3. (currently amended) A common key encryption communication system according to claim 2, wherein the ~~above~~ key transmitting device includes a generation unit generating the first encryption key, and the ~~above~~ acquisition unit acquires the encryption key generated by the above generation unit.

4. (currently amended) A common key encryption communication system according to claim 2, wherein the ~~above~~ key transmitting device further includes a first transmitting unit transmitting the first encryption key acquired by the ~~above~~ acquisition unit to the key receiving device.

5. (currently amended) A common key encryption communication system according to claim 4, wherein the ~~above~~ key receiving device further includes a second receiving unit receiving the first encryption key transmitted from the ~~above~~ key transmitting device, in case the ~~above~~ second receiving unit receives the first encryption key, the ~~above~~ second retaining unit ~~respectively~~ updates and retains the ~~above~~ most-updated encryption key as the one-generation-anterior encryption key and updates and retains the first encryption key received by the above second receiving unit as the most-updated encryption key, and the ~~above~~ second setting unit ~~respectively~~-re-sets the most-updated encryption key for transmission with the most-updated encryption key retained by the second retaining unit, and re-sets the most-updated encryption key and the one-generation-anterior encryption key for receipt with the most-updated encryption key and the one-generation-anterior encryption key retained on the basis of the retained key after being updated by the above second retaining unit, respectively.

6. (currently amended) A common key encryption communication system according to claim 1, wherein the ~~above~~ key receiving device includes a second transmitting unit transmitting a predetermined message to the key transmitting device, and the ~~above~~ key transmitting device includes first receiving unit receiving the predetermined message transmitted from the ~~above~~ key receiving device.

7. (currently amended) A common key encryption communication system according to claim 4, wherein the ~~above~~ first retaining unit and the second retaining unit ~~respectively~~ retain the an initialization key.

8. (currently amended) A common key encryption communication system according to claim 7, wherein the ~~above~~ key receiving device transmits a key initialization request message as the ~~above~~ predetermined message at a predetermined timing, in case the ~~above~~ key transmitting device receives the key initialization request message transmitted from the ~~above~~ key receiving device, the ~~above~~ acquisition unit acquires a second encryption key , and the ~~above~~ first retaining unit ~~respectively~~ updates and retains the common initialization key as the one-generation-anterior encryption key and updates and retains the second encryption key acquired by the ~~above~~ acquisition unit as the most-updated encryption key.

9. (currently amended) A common key encryption communication system according to claim 4, wherein the ~~above~~ key receiving device transmits a key update request message as the ~~above~~ predetermined message at a predetermined timing, in case the ~~above~~ key transmitting device receives a key update request message transmitted from the ~~above~~ key receiving device, the ~~above~~ acquisition unit acquires a third encryption key , and the ~~above~~ first retaining unit ~~respectively~~ updates and retains the ~~above~~ common initialization key as the one-generation-anterior encryption key and updates and retains the third encryption key acquired by the ~~above~~ acquisition unit as the most-updated encryption key.

10. (currently amended) A common key encryption communication system according to claim 9, wherein the ~~above~~ key receiving device includes unit determining a key update timing, and a second transmitting unit transmitting a predetermined message to the key transmitting device, in the case of reaching the key update timing, transmits the key update request message to the key transmitting device.

11. (currently amended) A common key encryption communication system according to claim 4, wherein the ~~above~~ key transmitting device includes a determining unit determining a key update timing, and said the first transmitting unit, in the case of reaching the key update timing, transmits the first encryption key acquired by the ~~above~~ acquisition unit to the key receiving device.

12. (currently amended) A common key encryption communication system according to claim 4, wherein the ~~above~~ key receiving device transmits a key resending request message as the ~~above~~ predetermined message at a predetermined timing, and, in case the ~~above~~ key transmitting device receives a key resending request message transmitted from the ~~above~~ key receiving device, the first transmitting unit transmits the first encryption key acquired by the ~~above~~ acquisition unit to the key receiving device.

13. (currently amended) A common key encryption communication system according to claim 4, wherein the ~~above~~ first transmitting unit, in a state where the ~~above~~ first retaining unit and the second retaining unit retain none of the keys, transmits the first encryption key acquired by the ~~above~~ acquisition unit to the key receiving device.

14. (currently amended) In a key transmitting device performing encryption communications using a common key updated at a predetermined timing with a key receiving device, a key transmitting device comprising a retaining unit retaining a most-updated encryption key and a one-generation-anterior encryption key as the ~~above~~ common keys, and a setting unit

respectively setting a one-generation-anterior encryption key for transmission, and setting a most-updated encryption key and a one-generation-anterior encryption key for receipt, and a decryption unit decrypting ~~an encrypted data with any one of the most-updated encryption key and the one-generation-anterior encryption key~~ are set by the setting unit data by use of the most-updated encryption key which is set by the setting unit if the data is encrypted by the most-updated encryption key and the decryption unit decrypting the data by use of the one-generation-anterior encryption key which is set by the setting unit if the data is encrypted by the one-generation-anterior encryption key.

15. (currently amended) In a key receiving device performing encryption communications using a common key updated at a predetermined timing with a key transmitting device, a key receiving device comprising a retaining unit retaining a most-updated encryption key and a one-generation-anterior encryption key as the ~~above~~ common keys, and a setting unit ~~respectively~~ setting a most-updated encryption key for transmission, and setting a most-updated encryption key and a one-generation-anterior encryption key for receipt, and a decryption unit decrypting ~~an encrypted data with any one of the most-updated encryption key and the one-generation-anterior encryption key~~ are set by the setting unit data by use of the most-updated encryption key which is set by the setting unit if the data is encrypted by the most-updated encryption key and the decryption unit decrypting the data by use of the one-generation-anterior encryption key which is set by the setting unit if the data is encrypted by the one-generation-anterior encryption key.

16. (currently amended) In a method of performing encryption communications using a common key updated at a predetermined timing between a key transmitting device and a key receiving device, a common key encryption communication method characterized in that:

the key transmitting device retains a most-updated encryption key and a one-generation-anterior encryption key as the ~~above~~ common keys,

sets ~~respectively~~ the one-generation-anterior encryption key for transmission and for receipt, and

the key receiving device retains the most-updated encryption key and the one-generation-anterior encryption key as the ~~above~~ common keys, and

sets ~~respectively~~ the most-updated encryption key for transmission and ~~sets~~ the most-updated encryption key and the one-generation-anterior encryption key for receipt, and

a decrypting unit decrypting ~~an encrypted data with any one of the most-updated encryption key and the one-generation-anterior encryption key set by the key receiving device~~  
data by use of the most-updated encryption key which is set by the key receiving device if the data is encrypted by the most-updated encryption key and the decryption unit decrypting the data by use of the one-generation-anterior encryption key which is set by the key receiving device if the data is encrypted by the one-generation-anterior encryption key.